



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/732,997	12/11/2003	Yasunori Kishimoto	36856.1190	8299
54066	7590	10/05/2005	EXAMINER	
KEATING & BENNETT, LLP 8180 GREENSBORO DRIVE SUITE 850 MCLEAN, VA 22102			LEE, JINHEE J	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/732,997

Applicant(s)

KISHIMOTO, YASUNORI

Examiner

Jinhee J. Lee

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/962,178.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1203.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Japan on 10/17/2000.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the ground terminal of claim 16, "the first package member is a planar package circuit board" of claim 22, "second package member includes... an annular side-wall extending downwardly from the periphery of the top plate" of claim 22 and communication device of claim 28 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2831

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 16, 17, 18, 24, 25, 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Hikita et al. (4792939).

Re claim 16, Hikita et al. discloses a composite electronic component comprising: a first case member (substrate 201); a surface acoustic wave device (207, 208, 209) mounted on the first case member and which includes a package (207, 208, 209; see column 4, line 14-15), a surface acoustic wave element (see column 4 lines 22-26 for example) accommodated within the package, and a ground terminal (see figure 1), the package having a conductor (terminal, see column 4 lines 24-25) in at least one portion thereof; and a conductive second case member (metallic casing, see abstract) to be connected to a ground potential (see figure 1) and fixed to the first case member (sealed, see abstract), the second case member having an opening (unnumbered at bottom of the cover of 102) in one portion opposing the conductor of the package (see figures 1 and 2).

Re claim 17, Hikita et al. discloses a component, wherein the first case member is a planar case circuit board and the second case member includes a top plate and an annular side-wall extending downwardly from the periphery of the top plate so as to surround the surface acoustic wave device mounted on the planar first case member (see figure 2).

Re claim 18, Hikita et al. discloses a component, wherein the second case member is made of a metal (see abstract).

Re claim 24, Hikita et al. discloses a component, wherein a plurality of the surface acoustic wave devices (207, 208, 209) are mounted on the first case member (201 for example, see figure 2).

Re claim 25, Hikita et al. teaches of a component, wherein the surface acoustic wave device includes a plurality of surface acoustic wave elements (in 207, 208, 209 for example).

Re claim 27, Hikita et al. discloses a component, wherein the composite electronic component is a duplexer (see abstract).

Re claim 28, Hikita et al. discloses a communication device comprising a composite electronic component (see abstract).

6. Claims 16, 17, 18, 19, 24, 25 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Yokoyama (US005392461A).

Re claim 16, Yokoyama discloses a composite electronic component comprising: a first case member (15a or 11); a surface acoustic wave device (14 a, 14b, 14c for example) mounted on the first case member and which includes a package (see column 3 lines 45-56), a surface acoustic wave element (see column 3 lines 45-56) accommodated within the package. and a ground terminal (see figure 2), the package having a conductor (see column 3 lines 45-56) in at least one portion thereof; and a conductive second case member (15b for example) to be connected to a ground potential (see figure 2) and fixed to the first case member (see figure 3), the second case member having an opening (unnumbered at bottom of 15b for example) in one portion opposing the conductor of the package (see figures 2 and 3).

Re claim 17, Yokoyama discloses a component, wherein the first case member is a planar case circuit board (11) and the second case member includes a top plate and an annular side-wall extending downwardly from the periphery of the top plate so as to surround the surface acoustic wave device mounted on the planar first case member (see figure 2).

Re claim 18, Yokoyama discloses a component, wherein the second case member is made of a metal (conductor film).

Re claim 19, Yokoyama discloses a component, wherein the second case member is made of an insulator (see column 3 line 21 according to the numbering in the middle) and a conductive film (16b) disposed on the external surface of the insulator (see figure 3).

Re claim 24, Yokoyama discloses a component, wherein a plurality of the surface acoustic wave devices (14a-c) are mounted on the first case member (11).

Re claim 25, Yokoyama discloses a component, wherein the surface acoustic wave device includes a plurality of surface acoustic wave elements (14a-c) (see figure 2).

Re claim 28, Yokoyama discloses a communication device comprising a composite electronic component (see abstract).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 20, 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hikita et al. (4792939) in view of Ueda et al. (6115592).

Re claim 20, the device of Hikita et al. substantially discloses a component as set forth in claim 16 above. Hikita et al. does not explicitly disclose, wherein the package includes first and second package members, the surface acoustic wave element being mounted on the first package member, the second package member having the conductor. However, Ueda et al. teaches of a package that includes first and second package members (40, 42 for example), the surface acoustic wave element (21, 22) being mounted on the first package member (40), the second package member having the conductor (42 for example) (see figure 9A). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the package that includes first and second package members, the surface acoustic wave element being mounted on the first package member, the second package member having the conductor of Ueda et al. on the component of Hikita et al. in order to provide secure packaging of elements.

Re claim 21, note that Ueda et al. teaches of a component, wherein the first package member includes a bottom plate (part of 40 for example) and an annular side-wall extending upwardly from the periphery of the bottom plate (side part of 40 for example) so as to have an opening opened upwardly and the second package member (42) is a planar lid which is fixed so as to close the opening of the first package (see figure 9A).

Re claim 25, the device of Hikita et al. substantially discloses a component as set forth in claim 16 above. Hikita et al. does not explicitly disclose, wherein each of the plurality of surface acoustic wave elements has a ladder-type circuit structure including a series arm resonator and a parallel arm resonator. However, Ueda et al. teaches wherein each of the plurality of surface acoustic wave elements has a ladder-type circuit structure including a series arm resonator and a parallel arm resonator (R_p , R_s) (see figures 4A and 4B).. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use each of the plurality of surface acoustic wave elements that has a ladder-type circuit structure including a series arm resonator and a parallel arm resonator of Ueda et al. on the component of Hikita et al. in order to provide ladder circuitry.

9. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hikita et al. in view of Ueda et al., as applied to claim 20 above, and further in view of Hagstrom (5903820).

Re claim 22, the device of Hikita et al. modified by teachings of Ueda et al. substantially discloses a component as set forth in claim 20 above. Hikita et al./Ueda et al. does not explicitly disclose that the first package member is a planar package circuit board and the second package member includes a top plate and four-sided side-wall extending downwardly from the periphery of the top plate so as to surround the surface acoustic wave device mounted on the planar package circuit board. However, Hagstrom teaches of a first package member (230 circuit board for example) that is a planar package circuit board and the second package member (220) that includes a top plate

Art Unit: 2831

and an annular side-wall extending downwardly from the periphery of the top plate (see figure 17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teaching of first package member that is a planar package circuit board and the second package member that includes a top plate and an annular side-wall extending downwardly from the periphery of the top plate of Hagstrom on the component of Hikita et al./Ueda et al. in order to provide integrated structure.

Re claim 23, note that the device of Hagstrom teaches of a second package member with a metallic cap.

10. Claims 20, 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama (4792939) in view of Ueda et al. (6115592).

Re claim 20, the device of Yokoyama substantially discloses a component as set forth in claim 16 above. Yokoyama does not explicitly disclose, wherein the package includes first and second package members, the surface acoustic wave element being mounted on the first package member, the second package member having the conductor. However, Ueda et al. teaches of a package that includes first and second package members (40, 42 for example), the surface acoustic wave element (21, 22) being mounted on the first package member (40), the second package member having the conductor (42 for example) (see figure 9A). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the package that includes first and second package members, the surface acoustic wave element being mounted on the first package member, the second package member having the

conductor of Ueda et al. on the component of Yokoyama in order to provide secure packaging of elements.

Re claim 21, note that Ueda et al. teaches of a component, wherein the first package member includes a bottom plate (part of 40 for example) and an annular side-wall extending upwardly from the periphery of the bottom plate (side part of 40 for example) so as to have an opening opened upwardly and the second package member (42) is a planar lid which is fixed so as to close the opening of the first package (see figure 9A).

Re claim 25, the device of Yokoyama substantially discloses a component as set forth in claim 16 above. Yokoyama does not explicitly disclose, wherein each of the plurality of surface acoustic wave elements has a ladder-type circuit structure including a series arm resonator and a parallel arm resonator. However, Ueda et al. teaches wherein each of the plurality of surface acoustic wave elements has a ladder-type circuit structure including a series arm resonator and a parallel arm resonator (R_p , R_s) (see figures 4A and 4B).. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use each of the plurality of surface acoustic wave elements that has a ladder-type circuit structure including a series arm resonator and a parallel arm resonator of Ueda et al. on the component of Yokoyama in order to provide ladder circuitry.

11. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama in view of Ueda et al., as applied to claim 20 above, and further in view of Hagstrom (5903820).

Re claim 22, the device of Yokoyama modified by teachings of Ueda et al. substantially discloses a component as set forth in claim 20 above. Yokoyama/Ueda et al. does not explicitly disclose that the first package member is a planar package circuit board and the second package member includes a top plate and four-sided side-wall extending downwardly from the periphery of the top plate so as to surround the surface acoustic wave device mounted on the planar package circuit board. However, Hagstrom teaches of a first package member (230 circuit board for example) that is a planar package circuit board and the second package member (220) that includes a top plate and an annular side-wall extending downwardly from the periphery of the top plate (see figure 17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teaching of first package member that is a planar package circuit board and the second package member that includes a top plate and an annular side-wall extending downwardly from the periphery of the top plate of Hagstrom on the component of Yokoyama/Ueda et al. in order to provide integrated structure.

Re claim 23, note that the device of Hagstrom teaches of a second package member with a metallic cap.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jinhee J. Lee whose telephone number is 571-272-1977. The examiner can normally be reached on M, T, Th and F at 6:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on 571-272-2800 ext. 31. The fax phone

Art Unit: 2831

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jinhee J Lee
Patent Examiner
Art Unit 2831

A handwritten signature in black ink, appearing to read 'Jinhee J Lee', with a long horizontal flourish extending to the right.

jil